Ordering number: EN 2251B

Monolithic Linear IC

No.2251B

SANYO

LA4280

2-Channel 10W AF Power Amp for Home Stereo, TV Use

Features

- High-power 2-channel AF power amp
- Low distortion
- Minimum number of external parts required (no bootstrap capacitor required)
- Low pop noise at the time of power switch ON/OFF
- Excellent ripple rejection (58dB typ)
- Wide operating voltage range (10V to 40V)
- External muting available
- On-chip protector against abnormalities (thermal shutdown, overvoltage)

Maximum Ratings at Ta = 25°C

				unit
Maximum Supply Voltage	V_{CC} max	Quiescent	45	V
Maximum Output Current	Io peak		4	A
Allowable Power Dissipation	Pd max	With heat sink	25	W
Operating Temperature	Topr		–20 to +75	°C
Storage Temperature	Tstg		–40 to +150	°C

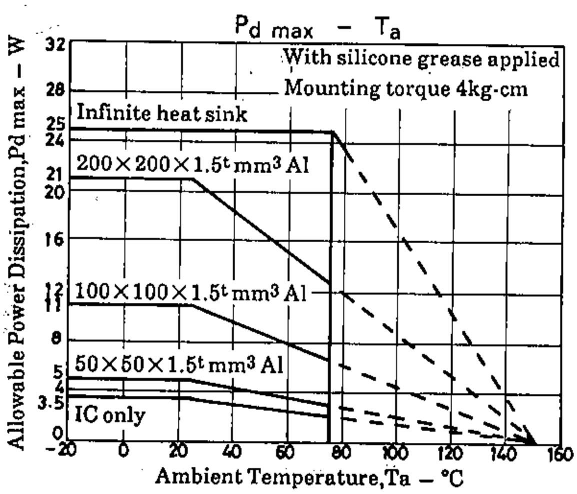
Operating Conditions at Ta = 25°C

			unit
Recommended Operating Voltage	V_{CC}	32	V
Recommended Load Resistance	R_L	8	Ω
Operating Voltage Range	V_{CC} op	10 to 40	V

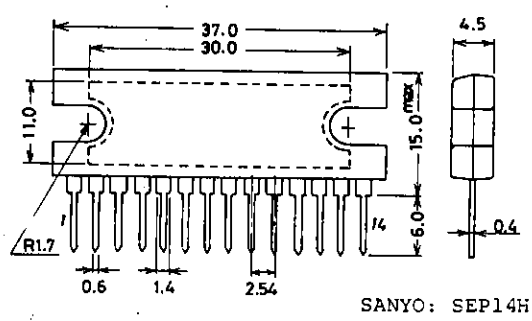
Operating Characteristics at Ta = 25°C, V_{CC} = 32V, R_L = 8Ω, f = 1kHz, Rg = 600Ω, See specified Test Circuit.

			min	typ	max	unit
Quiescent Current	Icco (1)	Quiescent	30	60	100	mA
	Icco (2)	MT/SW on	30	56	100	mA
Voltage Gain	VG		38	40	42	dB
Voltage Gain Difference	ΔVG				1.5	dB

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Package Dimensions 3023A-S14HIC
(unit: mm)

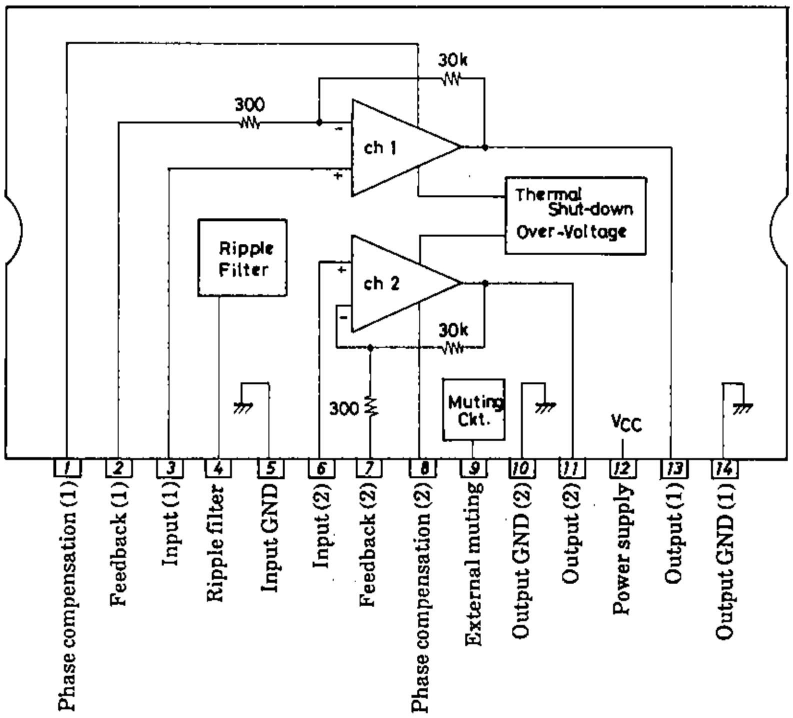


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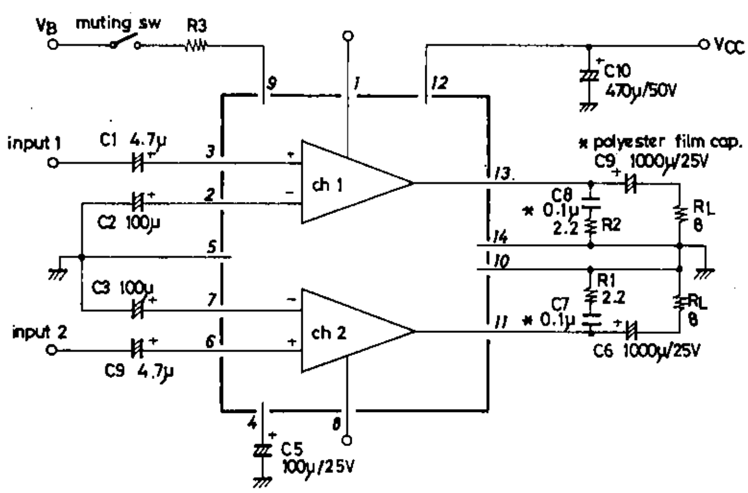
			min	typ	max	unit
Output Power	Po (1)	THD=1%	9.0	10.0		W
	Po (2)	THD=3%	10.0	11.5		W
Total Harmonic Distortion	THD	Po=2W		0.05	0.20	%
Output Noise Voltage	V_{NO}	Rg=10kΩ,BW=20Hz to 20kHz		0.25	1.0	mV
Ripple Rejection	SVRR	Rg=10kΩ,f_R=100Hz, V_R=0dBm	45	58		dB
Crosstalk	CT	Rg=10kΩ	45	60		dB
Muting	Vo (MT)	MT/SW on,Vi=−5dBm			−35	dBm

Equivalent Circuit Block Diagram and Pin Assignment



Unit (resistance: Ω)

Sample Application Circuit



Unit (resistance: Ω, capacitance: F)